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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/822,462

04/02/2001

Setsuo Nakajima

740756-2284

8966

31780

7590

03/04/2003

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EXAMINER

NGUYEN, JOSEPH H

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/822,462

Applicant(s)

NAKAJIMA ET AL.

Examiner

Joseph Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,15,16 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,15,16 and 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 09 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 22-24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrases "the insulating film is in contact with the insulating surface" in claims 22-23 and "the second insulating film is in contact with the insulating surface" in claim 24 are not supported by the specification and thus are deemed to be new matter.

Claims 22-23, 26-27, 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 22-23, it is not clear whether the term "the insulating film" in the last line of claims refer to a first insulating film or a second insulating film.

Claims 26-26, 29-30 are also rejected due to their dependency upon the rejected base claims 22-23.

### ***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 15-16, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Makita or Yamazaki et al (US 5,583,369).

With respect to Makita.

Regarding claim 1, Makita discloses on figure 12F a liquid crystal display device having a plurality of thin film transistors, at least one of said thin film transistors comprising an active layer over an insulating surface 501; a gate insulating film 509 over said active layer; a gate electrode 510n over said gate insulating film 509; and two wirings 517, 520 connected to said active layer, each of said wirings electrically connecting one of said plurality of thin film transistors, wherein edge portions of said active layer and a part of edge portion of said wirings 517, 520 are aligned and wherein the gate insulating film 509 is not in contact with the insulating surface 501.

Regarding claim 2, Makita discloses on figure 12F a liquid crystal display device having a plurality of thin film transistors, at least one of said thin film transistors comprising an active layer having a source 514n and drain region 515n over an insulating surface 501; a gate insulating film 509 over said active layer; a gate electrode 510n over said gate insulating film 509; and two wirings 517, 520 connected to said source and drain region, each of said wirings electrically connecting one of said plurality of thin film transistors, wherein edge portions of said active layer and a part of edge

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portion of said wirings 517, 520 are aligned and wherein the gate insulating film 509 is not in contact with the insulating surface 501.

Regarding claims 15-16, the claim language is merely the intended use. It has been held that a recitation with respect to the manner in which a claim apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2<sup>nd</sup> 1647 (1987).

Regarding claim 21, Makita discloses on figure 12F a liquid crystal display device having a plurality of thin film transistors, at least one of said thin film transistors comprising an active layer over an insulating surface 501; a gate insulating film 509 over said active layer; a gate electrode 510p over said gate insulating film; and two wirings 518, 520 connected to said active layer, each of said wirings is aligned with at least one edge portion of the active layer, and wherein the gate insulating film is not in contact with the insulating surface.

With respect to Yamazaki et al.

Regarding claims 1-2, 21, Yamazaki et al (figure 2E) discloses all the structures set forth in claims 1-2.

Regarding claims 15-16, the claim language is merely the intended use. It has been held that a recitation with respect to the manner in which a claim apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art

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apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2<sup>nd</sup> 1647 (1987).

Claims 1-2, 15-16, 21-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki (US 5990,542).

Regarding claims 1-2, 21, Yamazaki discloses on figures 5 all the structure set forth in the claimed invention.

Regarding claims 15-16, the claim language is merely the intended use. It has been held that a recitation with respect to the manner in which a claim apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2<sup>nd</sup> 1647 (1987).

Regarding claim 22, as best the Examiner is able to ascertain the claimed invention, Yamazaki discloses on figures 5 a semiconductor device comprising at least one thin film transistor comprising an active layer 504 over an insulating surface 502; a gate insulating film 512 over the active layer; and a gate electrode 507 over the gate insulating film, a first insulating film 522 over the thin film transistor; first and second wirings 526, 527 connected to the active region through contact hole in the first insulating film, a second insulating film 523 over the first insulating film; wherein a part of an edge portion of at least one of two wirings is aligned with at least one edge portion of the active layer, and wherein the insulating film is in contact with the insulating surface 502.

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Regarding claim 23, as best the Examiner is able to ascertain the claimed invention, Yamazaki discloses on figures 5 a semiconductor device comprising at least one thin film transistor comprising an active layer 504 over an insulating surface 502; a gate insulating film 512 over the active layer; and a gate electrode 507 over the gate insulating film, a first insulating film 522 over the thin film transistor; first and second wirings 526, 527 connected to the active region through contact hole in the first insulating film, a second insulating film 523 over the first insulating film; wherein a part of an edge portion of one of two wirings is aligned with at least one edge portion of the active layer, and wherein the insulating film is in contact with the insulating surface 502.

Regarding claim 24, as best the Examiner is able to ascertain the claimed invention, Yamazaki discloses on figures 5 a semiconductor device comprising at least one thin film transistor comprising an active layer 504 over an insulating surface 502; a gate insulating film 512 over the active layer; and a gate electrode 507 over the gate insulating film, a first insulating film 522 over the thin film transistor; first and second wirings 526, 527 connected to the active region through contact hole in the first insulating film, a second insulating film 523 over the first insulating film; wherein a part of an edge portion of one of two wirings is aligned with at least one edge portion of the active layer, and wherein the second insulating film is in contact with the insulating surface.

Regarding claims 25-28, the claim language is merely the intended use. It has been held that a recitation with respect to the manner in which a claim apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art

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apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2<sup>nd</sup> 1647 (1987).

Regarding claims 29-31, Yamazaki discloses on figures 5 the second insulating film 523 comprises a material selected from the group consisting of silicon oxide (col. 8, lines 53-54).

### ***Response to Arguments***

Applicant's arguments filed on 12/9/2002 have been fully considered but they are not persuasive.

With respect to claims 1-2, applicant argues that Makita or Yamazaki does not disclose the limitation "the gate insulating film is not in contact with the insulating surface" as recited in now amended claims 1-2. However, Yamazaki clearly discloses on figure 2 (E) the gate insulating film 207 is not in contact with the insulating surface 201 and Makita clearly discloses on figure 12 F the gate insulating film 509 is not in contact with the insulating surface 501. Note that layer 201 of Yamazaki and layer 501 of Makita are both made of glass, which is an insulating material, thus layers 201, 501 are considered as insulating surface herein.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

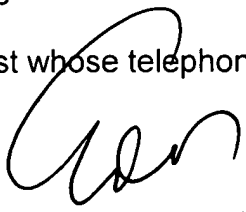
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN  
February 27, 2003.



**EDDIE LEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**